

conductors. The moment we pass from the metals to their compounds, we pass from a series of good conductors to bad ones, and from bad radiators to good ones. Water, among liquids, is probably the worst conductor; it is the best radiator. Silver, among solids, is the best conductor; it is the worst radiator. In the excellent researches of MM. De la Provostaye and Desains the author finds a striking illustration of what he regards as a natural law—that those molecules which transfer the greatest amount of motion to the ether, or, in other words, radiate most powerfully, are the least competent to communicate motion to each other, or, in other words, to conduct with facility.

II. "Remarks on Sun Spots." By BALFOUR STEWART, M.A., F.R.S.,
Superintendent of the Kew Observatory. Received March 8,
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In the volume on Sun Spots which Carrington has recently published, we are furnished with a curve denoting the relative frequency of these phenomena from 1760 to the present time. This curve exhibits a maximum corresponding to 1788·6. Again, in Dalton's 'Meteorology' we have a list of auroræ observed at Kendal and Keswick from May 1786 to May 1793.

The observations at Kendal were made by Dalton himself, and those at Keswick by Crosthwaite. This list gives—

For the year 1787 27 auroræ,		For the year 1790 36 auroræ;
1788 53 „		1791 37 „
1789 45 „		1792 23 „

showing a maximum about the middle, or near the end of 1788. This corresponds very nearly with 1788·6, which we have seen is one of Carrington's dates of maximum sun spots.

The following observation is unconnected with the aurora borealis. In examining the sun pictures taken with the Kew Heliograph under the superintendence of Mr. De la Rue, it appears to be a nearly universal law that the faculæ belonging to a spot appear to the left of that spot, the motion due to the sun's rotation being across the picture from left to right.

These pictures comprise a few taken in 1858, more in 1859, a few in 1861, and many more in 1862 and 1863, and they have been carefully examined by Mr. Beckley, of Kew Observatory, and myself. The following Table expresses the result obtained:—

Year.	No. of cases of facula to left of spot.	No. of cases of facula to right of spot.	No. of cases of facula equally on both sides of spot.	No. of cases of fa- culæ mostly be- tween two spots.
1858	2	0	0	0
1859	18	0	0	3
1861	9	1	3	0
1862	64	4	7	3
1863	47	0	9	2
1864	18	1	2	1